

# 2019 PCPCC Evidence Report

## *Investing in Primary Care: A State-Level Analysis*

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# Special thanks to entire study team

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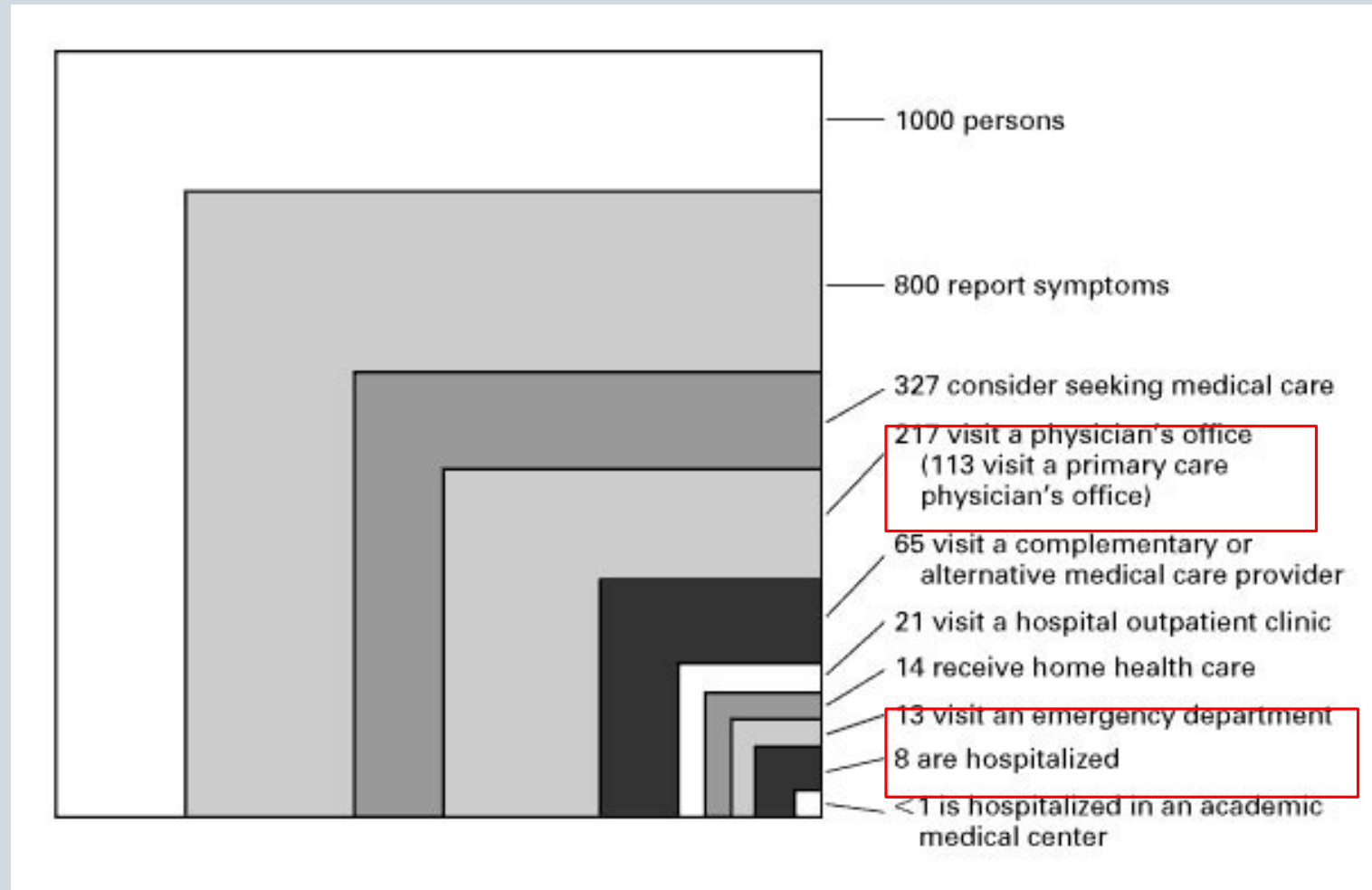
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# PC Spend: What is it?

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$$PC\ Spend = \frac{Primary\ Care\ Expenditures}{Total\ Health\ Care\ Expenditures}$$

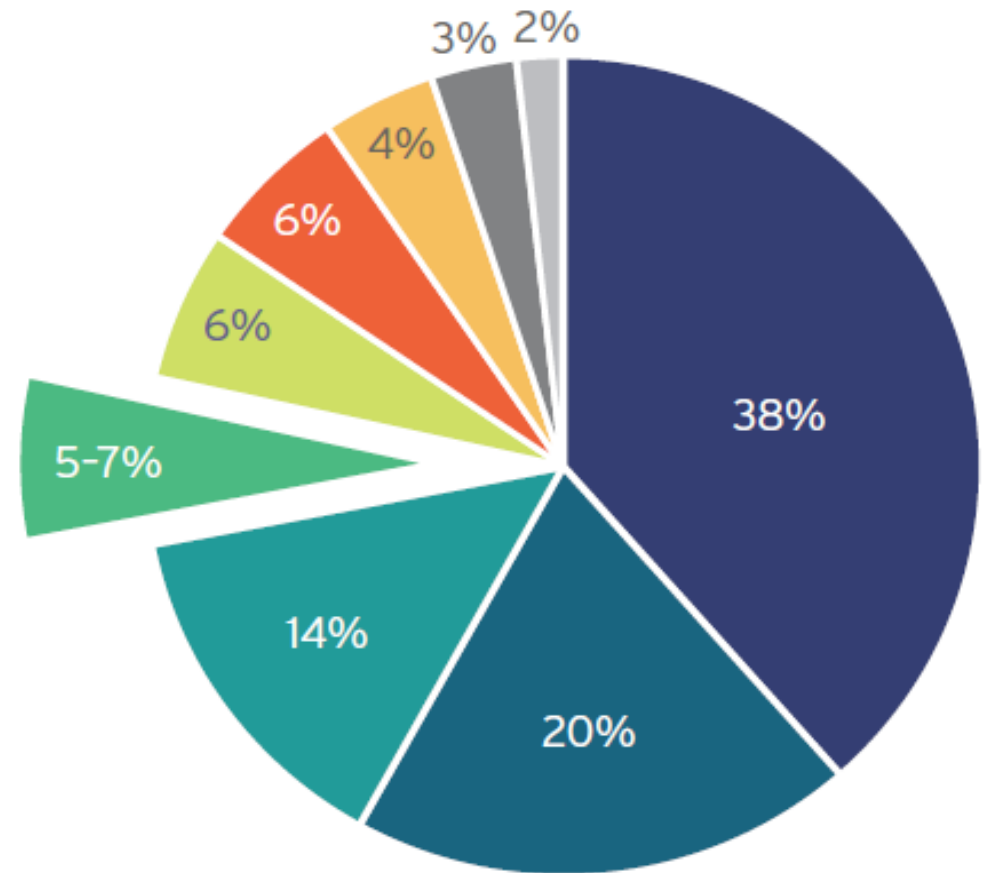
# PC Spend: Why does it matter?



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## Health Care Spending

- Hospital care
- All other physician and professional services
- Prescription drugs and other medical nondurables
- Primary care
- Nursing home care
- Other health, residential, and personal care
- Dental services
- Home health care
- Medical durables



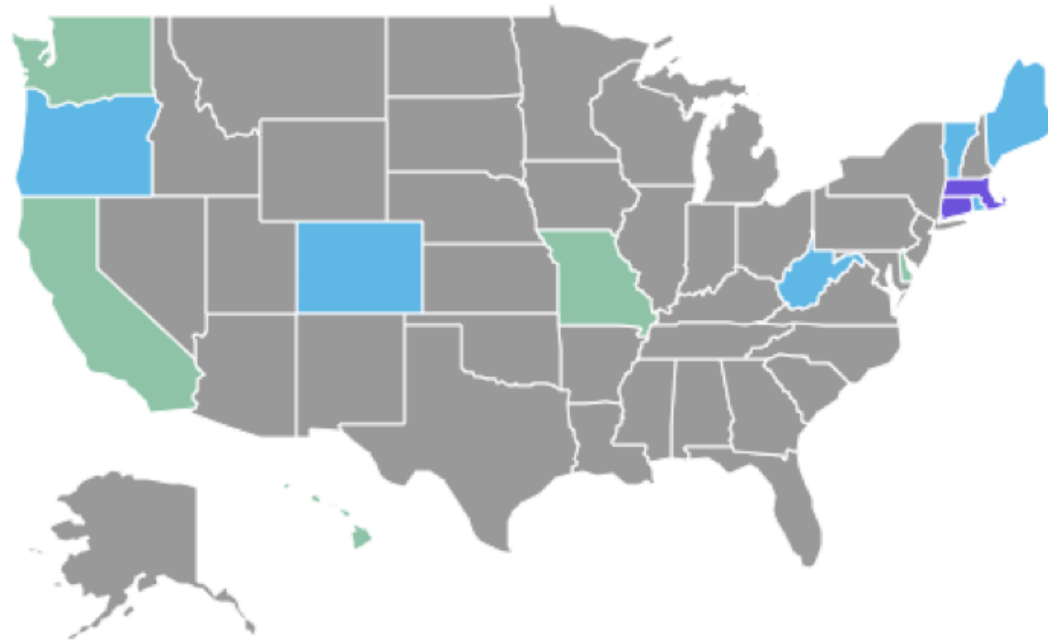
# PC Spend Definitions by Organizations and Select States

✓ Included in definition

Categories	OECD	Milbank Definition 1- PCP-C	Oregon	Rhode Island	Robert Graham Center Narrow	Robert Graham Center Broad
Preventive Health Services	✓		✓	✓		
Family Medicine	✓	✓	✓	✓	✓	✓
General Practice	✓	✓	✓	✓	✓	✓
Internal Medicine	✓	✓	✓	✓	✓	✓
Pediatrics	✓	✓	✓	✓	✓	✓
Geriatrics	✓	✓	✓	✓	✓	✓
Obstetrics and Gynecology	✓	✓	✓			✓
Nurse Practitioners/Physician Assistants	✓	✓	✓			✓
Behavioral Health Services			✓			✓
Homeopathy/Naturopathy			✓			
Home-Based Care Services	✓					
Outpatient Rehabilitation	✓					

OECD = Organisation for Economic Co-operation and Development.

## State Primary Care Spend Legislative Activity (as of 6/2019)



● Law or Regulation ● Legislation Pending ● State Report

[www.milbank.org](http://www.milbank.org)

[@MilbankFund](https://twitter.com/MilbankFund)

Patient-Centered  
**Primary Care**  
COLLABORATIVE



Why does it matter that we look at this on a state-level?

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#PCPCEvidenceReport

# Objective

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## Primary Purpose

- Analyze state-level primary care (PC) spend
- PC spend by age, gender, and payer type
- Begin to explore an association between primary care spend and health outcomes



# Methods

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Used 2011 - 2016 Medical Expenditure Panel Survey (MEPS) to calculate the primary care spend

- A national survey that samples civilian and non-institutionalized populations (30,000-35,000 annually)
- Asians and Hispanics oversampled
- Provides nationally representative estimates of insurance coverage, healthcare utilization, and expenditures

# MEPS Data: How can you get expenditure data from a survey?

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## Data is collected from two sources

- Respondents—with preparation, interviewed 5 times in 2 years
- Providers identified by the MEPS respondents (supplement and validate)

Data is imputed based on known regional costs by age, gender, payers, conditions and visit type.

# Measures

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## PC Spend (calculated for the U.S. and 29 states)

- PC Narrow – PCP (FPs, GPs, Peds, Geriatricians, Internists)
- PC Broad – PCP, NP/PAs, Psychiatrists, MH non-physicians, and OB-GYN

## Health Outcomes

- Any ED visit (% population having at least one ED visit)
- Any hospitalization (% population having at least one hospitalization)
- % Ambulatory-care sensitive hospitalizations -ACSH (hospitalizations for ACSC/total Hospitalizations)

# Analysis

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$$PC\ Spend = \frac{Primary\ Care\ Expenditures}{Total\ Health\ Care\ Expenditures}$$

Numerator: all billed expenses towards office-based and outpatient visits to primary care physicians

Denominator: Sum of billed expenditures for office-based outpatient, hospitalizations, ED visits, prescription medications, vision care, dental care, home health care, devices and medical supplies

# Observations

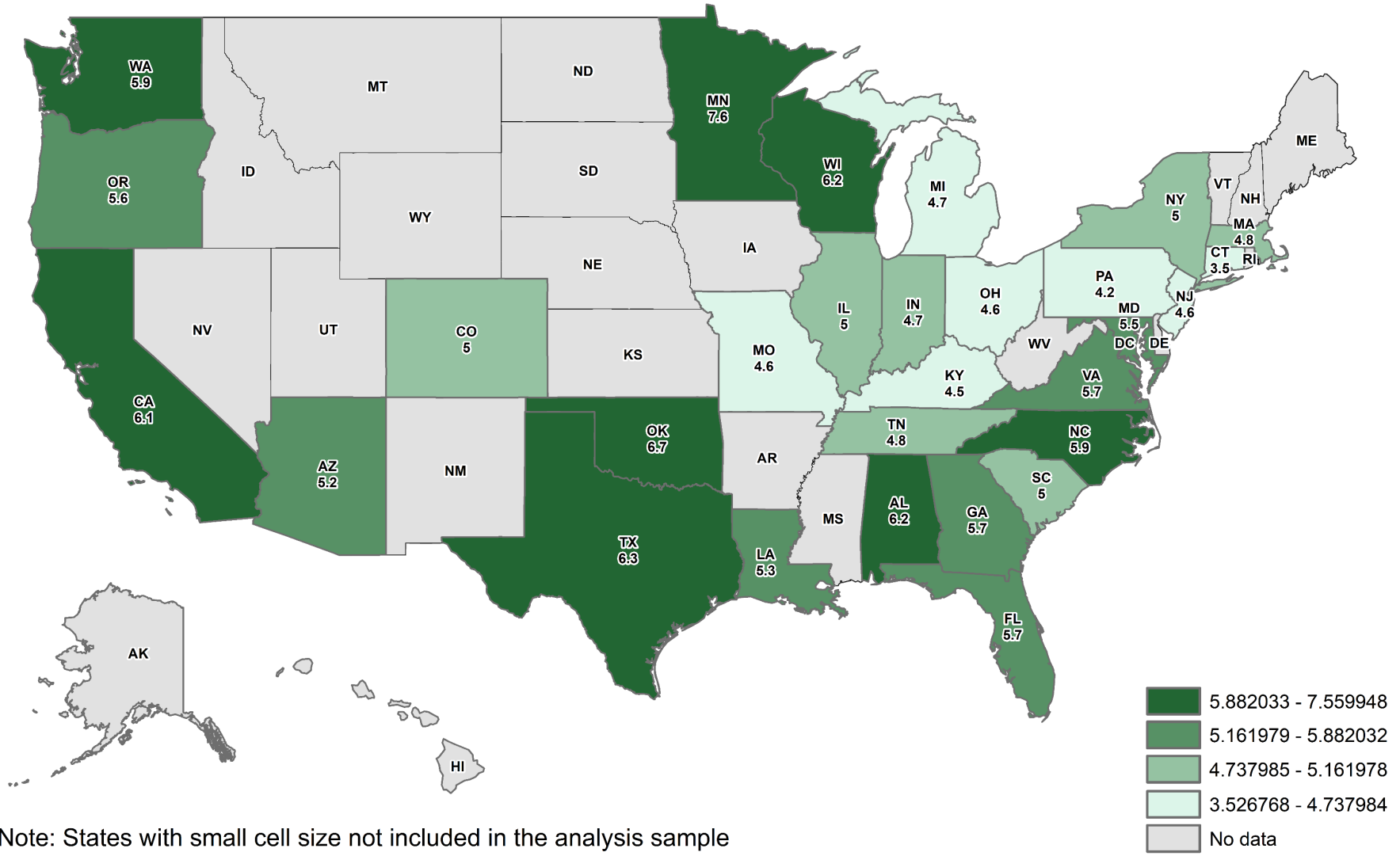
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1. Rural states
2. 21 least populated states in the U.S.
3. Midwest and Mountain

States Not Included in Analysis	
Alaska	Nebraska
Arkansas	Nevada
Delaware	New Hampshire
Hawaii	New Mexico
Idaho	North Dakota
Iowa	Rhode Island
Kansas	South Dakota
Maine	Utah
Mississippi	Vermont
Montana	West Virginia
	Wyoming

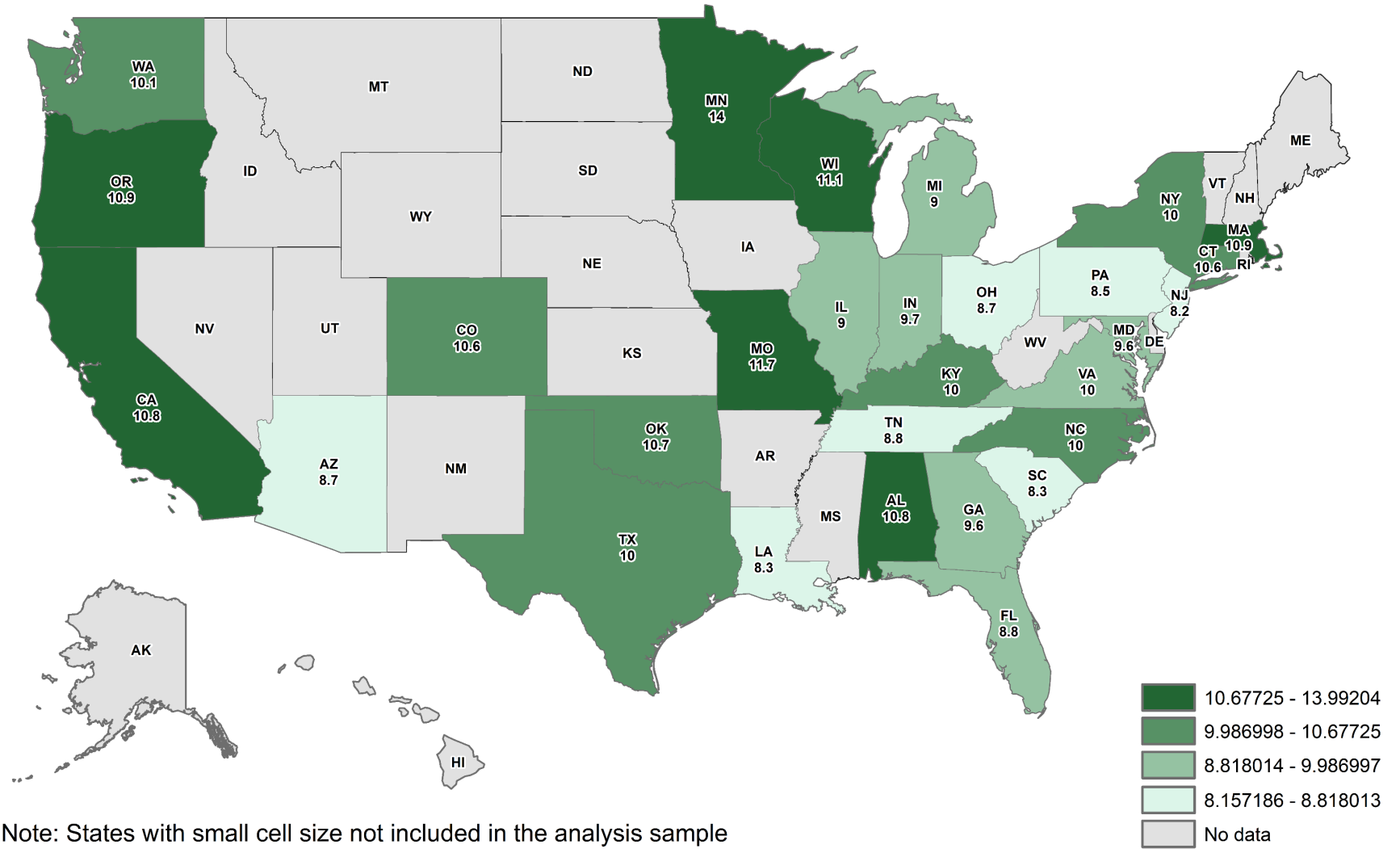
State	PC Narrow	
National	5.6	
AL		6.2
AZ		5.2
CA		6.1
CO		5.0
<b>CT</b>		<b>3.5</b>
FL		5.7
GA		5.7
IL		5.0
IN		4.7
KY		4.5
LA		5.3
MA		4.8
MD		5.5
MI		4.7
<b>MN</b>		<b>7.6</b>
MO		4.6
NC		5.9
NJ		4.6
NY		5.0
OH		4.6
OK		6.7
OR		5.6
PA		4.2
SC		5.0
TN		4.8
TX		6.3
VA		5.7
WA		5.9
WI		6.2

### Percent PC Spend Variation Across States (Narrow Definition)

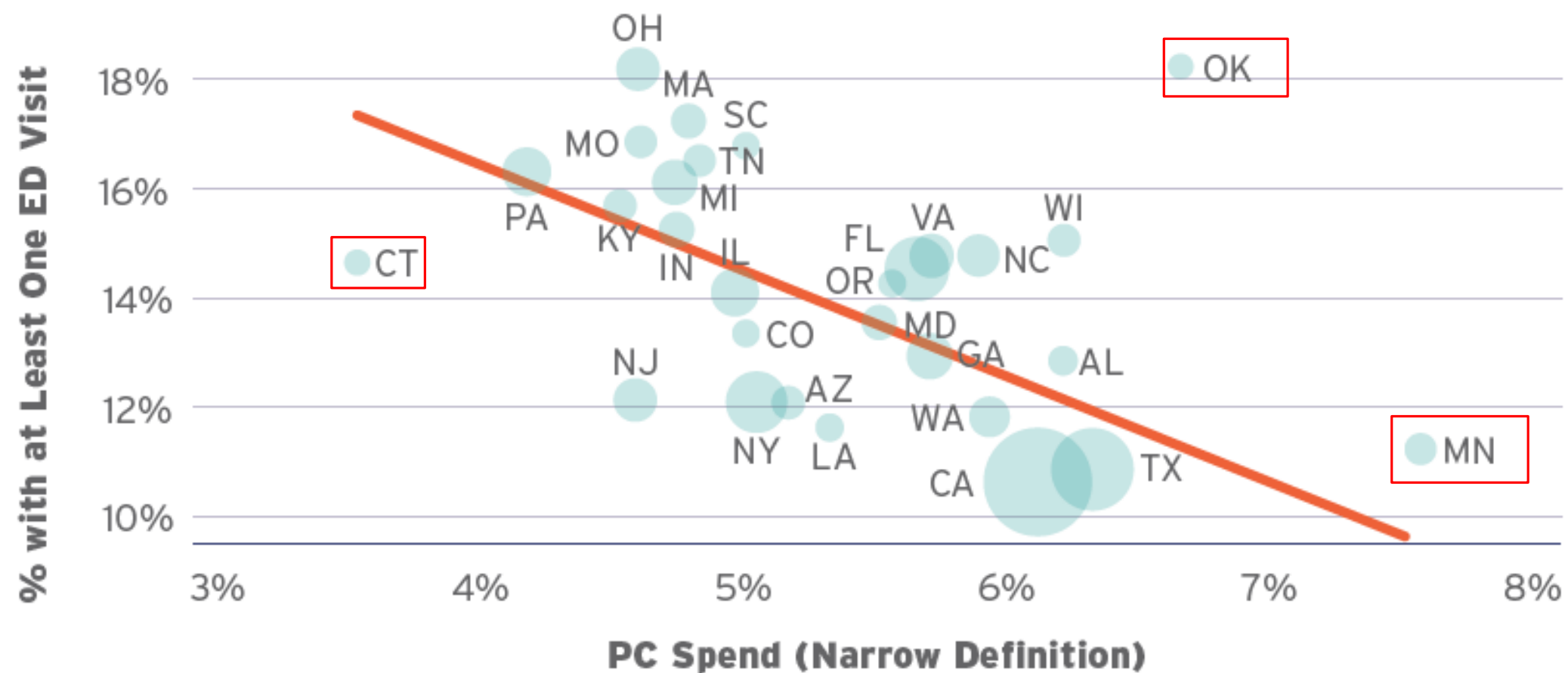


State	PC Broad
National	10.2
AL	10.8
AZ	8.7
CA	10.8
CO	10.6
CT	10.6
FL	8.8
GA	9.6
IL	9.0
IN	9.7
KY	10.0
LA	8.3
MA	10.9
MD	9.6
MI	9.0
<b>MN</b>	<b>14.0</b>
MO	11.7
NC	10.0
<b>NJ</b>	<b>8.2</b>
NY	10.0
OH	8.7
OK	10.7
OR	10.9
PA	8.5
SC	8.3
TN	8.8
TX	10.0
VA	10.0
WA	10.1
WI	11.1

## Percent PC Spend Variation Across States (Broad Definition)



# PC Spend-Narrow vs. Percent with at Least One ED Visit in Last 12 Months

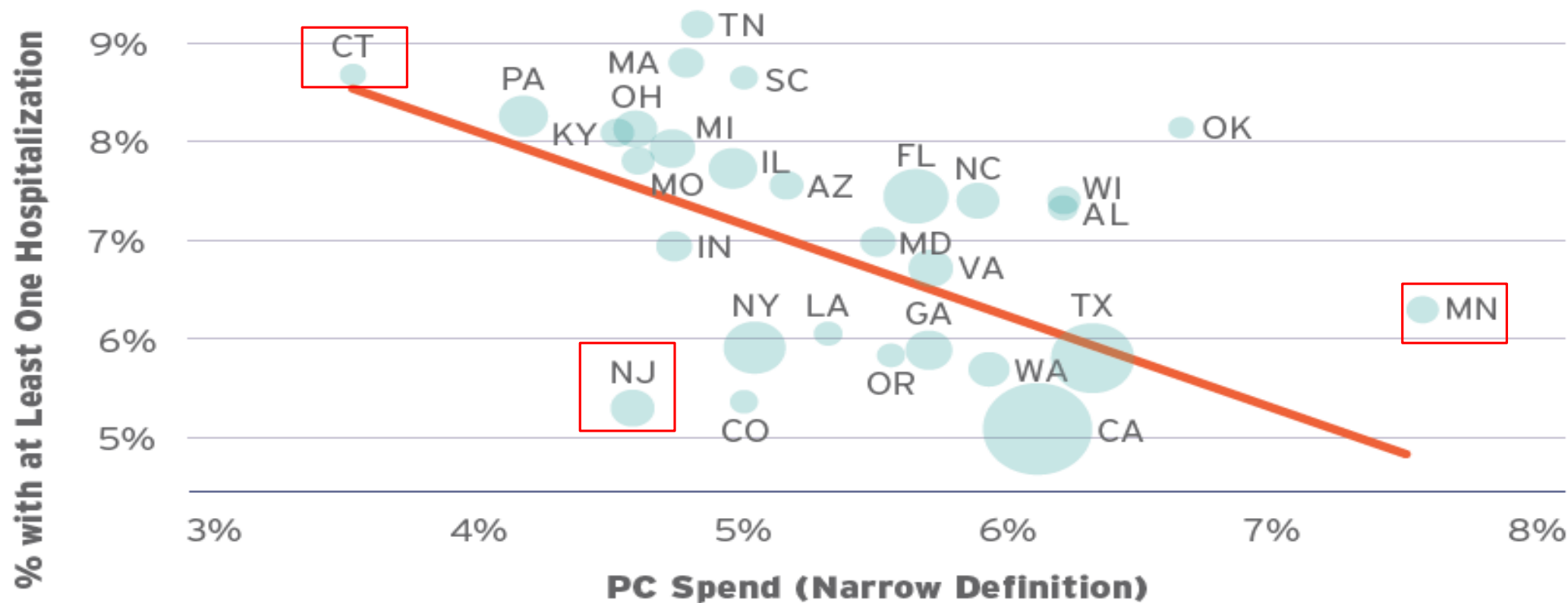


R = -0.58. Note: Size of circles represents the population size of the state.



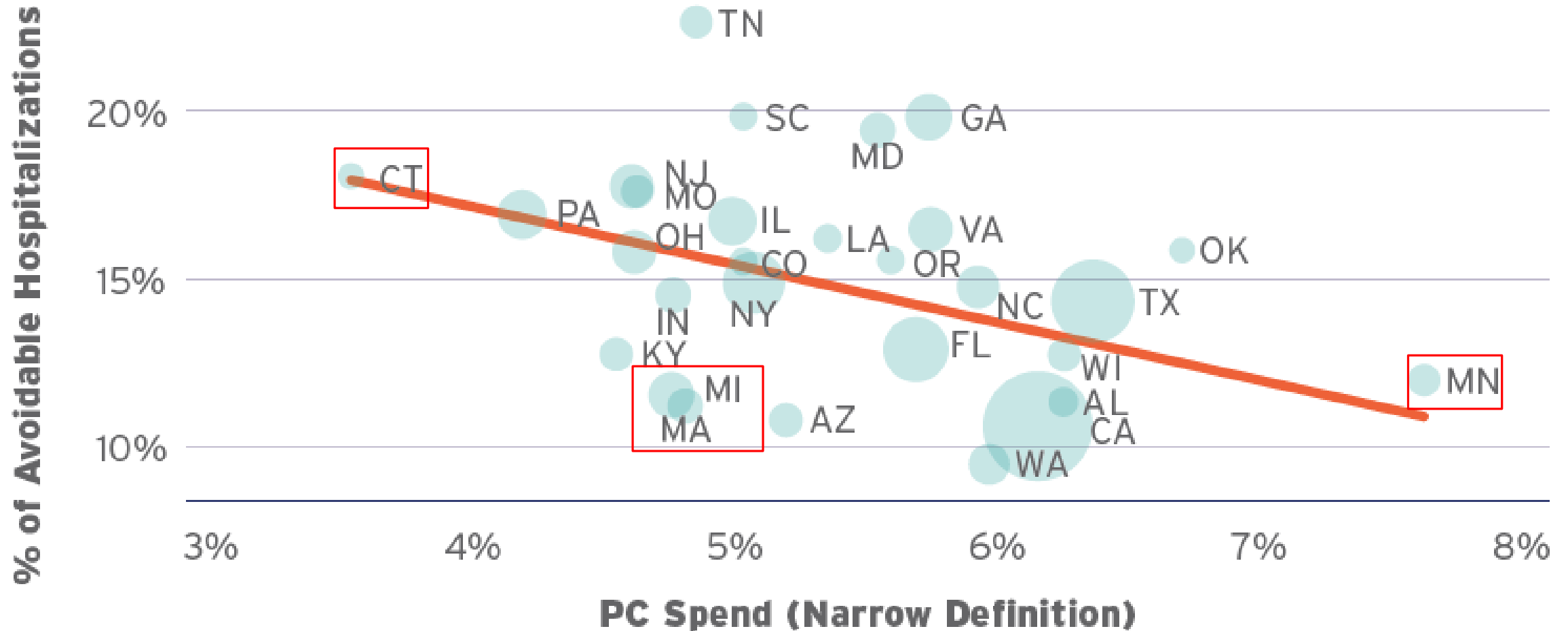
FIGURE 2.4

## PC Spend-Narrow Vs. Percent with at Least One Hospitalization in Last 12 months



R = -0.58. Note: Size of circles represents the population size of the state.

# PC Spend-Narrow Vs. Percent Avoidable Hospitalization



R = -0.44. Note: Size of circles represents the population size of the state.

# Limitations

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Self-reported data – recall and reporting bias

Based on non-institutionalized and civilian population – PC spend varies

Some expenses imputed based on costs by region, payer, gender and age

PC spend not adjusted for age, gender, payer and other confounders

# Discussion: Take Home Point 1

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The proportion of health care expenditures spent on primary care is low

- Highest state only spending 7.6% of total healthcare expenditures on primary care

# Discussion: Take Home Point 2

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Considerable interstate state variation exists for both the narrow and broad definitions

- Narrow- 3.5% in CT to 7.6% in MN
- Broad- 8.2% in NJ to 14.0% in MN

Variation in the differences between the narrow and the broad PC spend within states

- MN: Narrow 7.6% , Broad 14%
- FL: Narrow 5.7%, Broad 8.8%

# Discussion: Take Home Point 3

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There is a negative association between PC spend and utilization (As PC spend goes up, ED and inpatient utilization goes down)

Association, not necessarily causality

$$PC\ Spend = \frac{Primary\ Care\ Expenditures}{Total\ Health\ Care\ Expenditures}$$

# Future Directions

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How do demographic characteristics of a state impact PC spend?

How does the payer mix in a state impact PC spend?

What is the PC spend in the “missing” states?

Are there associations between PC spend and primary care delivery models in states?

What is the “right” PC spend?

How should we invest increased PC investment?

# Bottom Line

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1. PC Spend is lower in the U.S. when compared to OECD nations
2. PC Spend varies across states
3. Data suggests higher PC spend is associated with lower inpatient and ED utilization

Thank you! Questions?  
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